

Desigo® Fire Safety

Single-Mode | Multi-Mode Fiber-Optic Module

Models FN2006-U1, FN2007-U1

Architect & Engineer Specifications

- Uses single-mode or multi-mode fiber-optic pairs
 - Model FN2006-U1 is the single-mode fiber module
 - Model FN2007-U1 is the multi-mode fiber module
 - Primary power provided by Model FC2025 / FC2050 panels and FireFinder XLS systems
 - Shared / distributed power, via the Fire Terminal Board, Model FT2050
- Works with X-NET peer-to-peer network communications with the (2nd Generation) Network Ring Card, Model NRC
- 'Style 4' or 'Style 7' communication
- Fully supervised
- Operates in a daisy-chain configuration
- UL 864 10th Edition Listed, ULC-S527 3rd Edition Listed
- FM (#3010), CSFM (#7165-0067:0259)
- NYCFD (#6104) Approved

Product Overview

The single-mode (Model FN2006-U1) / multi-mode (Model FN2007-U1) fiber-optic interface module can be used to transmit RS485 communication, relative to Desigo Fire Safety Model FC2025 and FC2050 fire-alarm control panels (FACPs), as well as with the Model FT2050 Desigo Fire Terminal unit.

The single-mode / multi-mode fiber-optic module provides X-NET, peer-to-peer network communication between the Desigo 252-point and 504-point FACPs, as well as between each Siemens FireFinder XLS panels.

For use with FireFinder XLS FACPs, a communications bracket, Model COM-BRK, is used to mount one (1) single-mode / multi-mode fiber-optic module.

Additionally, Models FN2006-U1 / FN2007-U1 require 24 Volts DC [nominal] power, and Models FC2025 or FC2050 FACPs each serve as the main-power source for this requirement for operation.

Models FN2006-U1 / FN2007-U1 can also be powered from any UL Listed, regulated 24VDC power supply – (Model PAD-3 or Model PAD-4).

The Single / Multi-Mode Fiber-Optic Module is FM (#3010); CSFM (#7165-0067:0259) and FDNY (#6104) Approved.

Specifications

Model FN2006-U1 / FN2007-U1 each mounts in Desigo one-height unit (1HU) or two-height unit (2HU) enclosures, and operates in a daisy-chain configuration. The connection between single-mode fiber-optic modules uses two (2), high-quality duplex 9/125 fiber-optic cables and 'SC'-style fiber connectors.

For Model FN2007-U1, two (2), high-quality duplex 50/125µm or 62.5/125µm fiber-optic cables (via 'SC'-style fiber connectors) are used. The two (2) cables are in a single shield, similar to an electrical zip cord.

For fiber type 50/125 µm, each segment of the multi-mode fiber network can stretch up to 6,550 feet | 1.24 miles (2 km). For both single-mode and multi-mode installations, overall system fiber length is limited by the communication delay across the entire fiber network. Total network length should not exceed 131,000 feet | 24.8 miles (40 km).

Each networked Desigo Fire Safety panel or terminal requires one (1) duplex cable for connection to another Desigo Fire Safety panel.



Model FN2007-U1
Multi-Mode Fiber-Optic Module



Specifications (cont.)

For 'Class B' installations, each FACP or terminal at either end of the daisy chain uses one (1) duplex cable for connection to the next networked panel or terminal. Terminals or FACP's within the daisy chain requires two (2) duplex cables: one (1) duplex cable for connection to the previous FACP, and one (1) duplex cable for connection to the next FACP.

For 'Class A' installations, each FACP or terminal requires two (2) duplex cables: one (1) duplex cable for connection to the previous FACP, and one (1) duplex cable for connection to the next FACP.

Each fiber-optic module contains five (5) light-emitting diode (LED) indicators for system power and system status.

The Power LED is **green** and lights whenever there is 24VDC. Both channels [A and B] have a **yellow** and **green** LED. The **green** LED indicates either the single-mode or multi-mode module is transmitting data on that channel. The **yellow** LED lights when data is received.

Temperature and Humidity Range

Models FN2006-U1 and FN2007-U1 are UL 864 10th Edition Listed for indoor dry locations within a temperature range of 120+/-3°F (49+/-2°C) to 32+/-3°F (0+/-2°C) and a relative humidity of 93+/-2% at a temperature of 90+/-3°F (32+/-2°C).

Technical Data

Characteristics	
Optical Connection:	SC Type
Number of Fibers Between Two (2) Interface Modules	2
Required Converter Between Two (2) Stations:	2
Connection Length To Station:	328.1 feet (100 m)
Fiber Optic Cable Multi-Mode [Fiber 50 / 125µm]	6,550 feet (1,996 m)
Fiber Optic Cable Single-Mode [Fiber 62.5 / 125µm]	13,100 feet (3,993 m)
Fiber Optic Cable Single-Mode [Fiber 9 / 125µm]	131,000 feet (39,930 m)

Physical Properties

Models FN2006-U1 FN2007-U1	
Dimensions: [W -x- H -x- D]	6" -x- 4.5" -x- 1.25" (15.2 cm. -x- 11.4 cm. -x- 3.2 cm.)
Weight:	1.27 Lbs. (576 g)

Details for Ordering

MODEL OR TYPE	PART NUMBER	PRODUCT
FN2006-U1	S54400-A61-A1	Single-mode fiber-optic module
FN2007-U1	S54400-A62-A1	Multi-mode fiber-optic module
COM-BRK	S54430-B7-A1	Communications Bracket (for FireFinder XLS CAB-series enclosures)

Related Documentation

Product	Data Sheet Number
Fire Terminal & Equipment	6803
Desigo 252-point FACP	6815
Desigo 504-point FACP	
Auxiliary Power Supply [Model PAD-3]	3362
Auxiliary Power Supply [Model PAD-4]	3363
Network Ring Card (2nd Generation)	6347

NOTICE – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product. All are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

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